

Material Data Sheet

Forceram[®]

Silicon Carbide (SiC)

Technical data					
Chemical analysis		%	68	%	68
SiC					
Bond		%	25	%	25
Bulk density		kg/dm ³	2.8	g/cc	2.8
Fracture Toughness		MPam ^{1/2}	3.6	MPa m ^{1/2}	3.6
Rockwell Hardness		RHA	77	RHA	77
Modulus of rupture					
	RT	MPa	160	psi	23,200
	1400°C	MPa	180	psi	26,100
Modulus of elasticity	RT	GPa	250	GPa	250
Thermal conductivity		W/(m*K)	20	BTU-in.	140
1000°C				hr.ft. ² °F	
Thermal expansion	α (RT...1100°C)	K ⁻¹ *10 ⁻⁶	4.4	K ⁻¹ *10 ⁻⁶	4.4

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